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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/344,863	06/28/99	SCHLUETER	E D/99006

EXAMINER	
HON,S	
ART UNIT	PAPER NUMBER
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DATE MAILED: 05/24/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary	Application No. 09/344,863	Applicant(s) SCHLUETER ET AL.	
	Examiner Sow-Fun Hon	Art Unit 1772	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-26 is/are pending in the application.

4a) Of the above claim(s) 26 is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-25 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claims 26 are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

a)☐ All b)☐ Some * c)☐ None of the CERTIFIED copies of the priority documents have been:

1.☐ received.

2.☐ received in Application No. (Series Code / Serial Number) _____ .

3.☐ received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

Attachment(s)

15) ☒ Notice of References Cited (PTO-892)
16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 1 .
18) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
19) ☐ Notice of Informal Patent Application (PTO-152)
20) ☐ Other: .

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1-25, drawn to an article, classified in class 428, subclass 35.8.

II. Claim 26, drawn to an apparatus, classified in class 430, subclass 529.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as mutually exclusive species in an intermediate-final product relationship. Distinctness is proven for claims in this relationship if the intermediate product is useful to make other than the final product (MPEP § 806.04(b), 3rd paragraph), and the species are patentably distinct (MPEP § 806.04(h)). In the instant case, the intermediate product is deemed to be useful as electrolytic capacitors and the inventions are deemed patentably distinct since there is nothing on this record to show them to be obvious variants. Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions anticipated by the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

2. During a telephone conversation with Annette Bade on May 15, 2000, a provisional election was made **with traverse** to prosecute the invention of Group I, claims 1-25. Affirmation of this election must be made by applicant in replying to this Office action. Claim 26 was withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

3. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

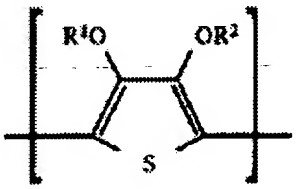
5. Claims 1-25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear what the xerographic component is.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

7. Claim 1-3, 5-8 and 24-25 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Jonas et al. (US Patent 5,766,515). Jonas et al. have conductive coatings for picture production such as electrophotography (xerography), (column 3, lines 5-15). Examples given by Jonas et al. of suitable substrates are polycarbonates, polyamides, polyethylene, polypropylene (column 3, lines 22-30), polysulphone and polyimide (column 3, lines 54-57). The coatings comprise of polythiophenes of the formula shown below



wherein the R1 and R2 can together form an optionally substituted C_{1-4} alkylene radical (cycloalkylene radical), preferably a methylene radical optionally substituted by alkyl groups, an ethylene-1,2 radical optionally substituted by C_{1-12} alkyl or phenyl groups, or a cyclohexylene-1,2 radical (abstract). Jonas et al. give a preferred thiophene example as 3,4-polyethylene dioxythiophene (column 5, line 2-3).

Claim Rejections - 35 USC § 103

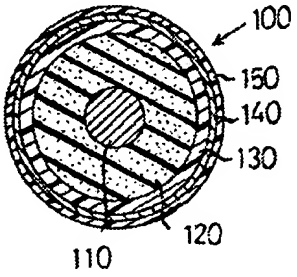
8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claims 1-3, 5-13, 16-18 and 20-22, 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tarumi et al. (US Patent 4,827,868) in view of Jonas et al.

Tarumi et al. have a toner carrier (xerographic component) for an electrostatic printing machine, which is a roller (intermediate transfer roll) that carries toner onto a surface of the latent image carrier (abstract). Tarumi et al. teach a rotating shaft 110, an elastic layer 120 (substrate) made of rubber (polymer), a thin resin (polymer) cylinder 130, a conductive layer 140 and a toner carrying layer 150 made of non-conducting resin (polymer), (column 3, lines 35-42), as shown in the figure below. Tarumi et al. also teach that the toner carrier can be formed into a belt shape, not limited to the roller shape (column 7, lines 34-36).

FIG. 1



Tarumi et al. teach that the thin resin cylinder 130 can be of polycarbonate or fluororesin (fluoropolymer), (column 4, lines 13-17) and that the elastic layer 120 can be of silicon rubber (column 4, lines 30-32). Tarumi et al. teach that the toner layer 150 can be made from fluoropolymer or silicon resin (silicone rubbers),(column 3, lines 56-68). Tarumi et al. teach that the conductive layer 140 can control an image by applying a bias voltage between the conductive layer and the electrode of the photosensitive member (column 3, lines 44-48), meaning that the conductive layer is capable of recieving a bias. Tarumi et al., however, fail to teach the use of polythiophene in the conducting layer 140.

Jonas et al. have been discussed above and teach the use of polythiophene as a conductive layer in xerography.

Therefore it would have been obvious to one of ordinary skill in the art to have used the conductive materials of Jonas et al. in the xerographic component of Tarumi et al. to obtain an improved xerographic component with a conductive layer.

10. Claims 4, 19 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tarumi et al. in view of Jonas et al. and Newkirk (US Patent 4,375,505). The first two inventions have been discussed above and fail to teach the specific claimed fluoropolymers. Tarumi et al. and Jonas et al. also fail to teach the use of a heating element even though Tarumi et al. teach the use of a metal shaft as a conductive rotating shaft (column 4, lines 28-29).

Newkirk has a fuser member (xerographic component) that fuses toner images to receivers (intermediate transfer component) by means of heat and pressure (column 1, lines 12-15), and that the member can be either a roller or a belt (column 1, lines 29-32). Newkirk et al. teach an internal heating source (element) in the fuser roll which is located within the roller core

(column 8, lines 64-68). Newkirk et al. cite prior art which teach the use of vinylidene fluoride-hexafluoropropylene-tetrafluorethylene polymers (column 2, lines 26-34) which can be cured with a crosslinking agent (monomer) to obtain the desired physical properties as known by one of ordinary skill in the art.

Therefore it would have been obvious to one of ordinary skill in the art to have used the teachings of Newkirk and Jonas et al. in the invention of Tarumi et al. to obtain an improved xerographic component.

11. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tarumi et al. in view of Jonas et al. and Chen et al. (US Patent 5,720,703). The first two inventions have been discussed above and fail to teach the use of the specific claimed fluoropolymers.

Chen et al. have a fuser member (xerographic component) for fusing a toner image to a substrate, which comprises a rigid metal core, a cured fluoroelastomer layer, an adhesive covering the fluoroelastomer layer and a fluoropolymer covering the adhesive layer (abstract). The uncured fluoropolymer used can have vinylidene fluoride, tetrafluoroethylene and hexafluoropropylene subunits (column 3, lines 1-10) and the curing agent can be considered to provide an additional cure-site subunit (column 3, lines 15-16).

Therefore it would have been obvious to one of ordinary skill in the art to have used the teachings of Chen et al. and Jonas et al. in the invention of Tarumi et al. to obtain an improved xerographic component.

12. Claims 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tarumi et al. in view of Krafft et al. (US Patent 5,443,944). Tarumi et al. has been discussed above and fails to teach the layer of conductive polythiophene.

Krafft et al. have a photographic (imaging) material comprising a transparent film support having on one side a light-sensitive layer and on the other side a transparent magnetic layer and an antistatic layer of polythiophene which can be arranged below the transparent magnetic layer (abstract). Krafft et al. teach that the use of PEDT (polyethylene dioxythiophene) layer applied underneath the magnetic layer gives good adherence (of the magnetic layer) to the support regardless of the binder composition of the magnetic layer (column 6, lines 20-24). Krafft et al. teach the use of the polythiophene as a PEDT/PSS solution (column 3, lines 35-37), where PSS is polystyrene sulfonic acid (column 3, lines 25-29).

Therefore it would have been obvious to one of ordinary skill in the art to have used the polyethylene dioxythiophene/polystyrene sulfonic acid layer in the invention of Tarumi et al. to obtain an improved xerographic component.

Any inquiry concerning this communication should be directed to Sow-Fun Hon whose telephone number is (703)308-3265. The examiner can normally be reached Monday to Friday from 8:00 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's primary examiner, Rena Dye, can be reached on (703)308-4331. The fax phone number for the organization where this application or proceeding is assigned is (703)305-3599.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0661.

SHA
05/22/02

RENA L. DYE
PRIMARY EXAMINER
TC 1700